Title (en)

Methods and systems for encoding/decoding signals, and computer program product therefor

Title (de)

Verfahren und Vorrichtungen zur Kodierung/Dekodierung von Signalen, sowie Computerprogrammprodukt dafür

Title (fr)

Procédés et dispositifs pour coder/décoder de signaux, et produit de programme d'ordinateur associé

Publication

EP 1578133 B1 20070815 (EN)

Application

EP 04006489 A 20040318

Priority

EP 04006489 A 20040318

Abstract (en)

[origin: EP1578133A1] A method for encoding and decoding media signals, includes the operations of generating at a transmitting side multiple descriptions associated to data of the media signals through a downsampling operation (DS) performed on the data, and decoding at a receiving side the multiple descriptions for reconstructing the data by merging (US) the multiple descriptions. The operation of generating multiple descriptions further includes the operations of obtaining a spectral representation (S) of the data, comprising bands (LS, MS HS) associated to different ranges ((LR, MR HR), the bands (LS, MS HS) being obtained by a suitable quantization operation and comprising at least one highly quantized band (HS), that is subjected to a higher degree of quantization. A scrambling operation (SC, SC') is performed on the spectral representation (S) by moving the at least one highly quantized band (HR) to a different range (LR, MR), the scrambling operation being performed prior the downsampling operation (DS). In decoding, a descrambling operation (DS, DS') is performed before the merging (US) operation on the multiple descriptions. Preferred application is in coding of video signals by using polyphase downsampling (PDMD).

IPC 8 full level

G10L 19/02 (2006.01); **G10L 19/14** (2006.01); **G10L 19/24** (2013.01); **H04N 7/12** (2006.01); **H04N 7/26** (2006.01); **H04N 7/46** (2006.01)

CPC (source: EP US)

G10L 19/0208 (2013.01 - EP US); **G10L 19/24** (2013.01 - EP US); **H04N 19/39** (2014.11 - EP US); **H04N 19/59** (2014.11 - EP US); **H04N 19/63** (2014.11 - EP US)

Cited by

CN104469389A; US8432963B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1578133 A1 20050921; **EP 1578133 B1 20070815**; DE 602004008214 D1 20070927; US 2005213658 A1 20050929; US 2011069753 A1 20110324; US 7929601 B2 20110419; US 8391358 B2 20130305

DOCDB simple family (application)

EP 04006489 A 20040318; DE 602004008214 T 20040318; US 8388605 A 20050318; US 95375010 A 20101124